

### REMARKS

This application has been reviewed in light of the Office Action dated December 6, 2005. Claims 1, 3, 5-7, and 9-11 are presented for examination. Claims 1, 3, and 5, the independent claims, have been amended to define more clearly what Applicants regard as their invention. Favorable reconsideration is requested.

A telephone interview was conducted with Examiner Abdulsalam on April 4, 2006 to discuss the amendments herein and how they distinguish over the cited art. The arguments presented during the interview are as set out below. No agreement was reached. Applicants thank Examiner Abdulsalam for his time spent discussing the amendments herein with their Attorney.

Claims 1, 3, 5-7, and 9-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,330,022 (Seligmann) in view of Japanese Publication 11-289,524 (Tatsuki) and U.S. Patent 6,025,870 (Hardy).

The present invention is intended to provide a control method and apparatus for a home office environment, for example, in which a user viewing a display is monitored for a period of time for signs of stress, and the display is moved to a virtual common space so that the user can rest based on the results of the monitoring.

Claim 1 is directed to a control method for a home office system that includes user terminal devices each of which includes a display device. A monitoring step includes monitoring whether or not a period when the concentration of a user is continuously toward the display device is longer than a predetermined time, based on an image of the user picked up by a camera. A control step includes automatically changing a display on the display device to a display of a common virtual space for rest by informally

communicating with other users when it is determined that the user should take a rest, based on a result obtained in the monitoring step that the concentration of the user is continuously toward the display device for longer than the predetermined time set by the user in advance, so that the user may informally communicate with other users present in the common virtual space for rest.

Notably, in the control method of Claim 1, a display on a display device is automatically changed to a display of a common virtual space for rest by informally communicating with other users when it is determined that a user should take a rest, based on a result obtained in monitoring whether a period when the concentration of the user is continuously toward the display device is longer than a predetermined time set by the user in advance.

By virtue of the features of the method of Claim 1, a display is changed based on an elapsed time, that is, if a predetermined time does not elapse, the display is not changed.

*Seligmann*, as understood by Applicants, relates to a digital processing apparatus and method to support video conferencing in variable contexts.

*Tatsuki*, as understood by Applicants, relates to a video conference system where a background of a virtual space is changed when a camera or a participant moves. A partial translation of Fig. 7 of *Tatsuki* and the corresponding description has become available and is submitted herewith.

*Hardy*, as understood by Applicants, relates to automatic switching of video conferencing focus.

The Office Action at page 3 concedes that *Seligmann* does not disclose the claimed monitoring step and points to the Abstract of *Tatsuki* as allegedly disclosing such monitoring step.

In the *Tatsuki* system, as discussed above and as understood by Applicants, a background of a virtual space is changed when a camera or a participant moves but if the position of the camera or the participant does not change, the background of the virtual space is apparently not changed.

Applicants submit that nothing has been found in *Tatsuki* that would disclose or suggest monitoring whether or not a period when a concentration of a user is continuously toward a display device is longer than a predetermined time, based on an image of the user picked up by a camera. In contradistinction to the method of Claim 1, *Tatsuki* monitors movement and not an elapsed time.

Nothing found in *Seligmann*, *Tatsuki*, or *Hardy*, whether considered either separately or in any permissible combination (if any) would teach or suggest automatically changing a display on a display device to a display of a common virtual space for rest by informally communicating with other users when it is determined that a user should take a rest, based on a result obtained in monitoring whether or not a period when the concentration of the user is continuously toward the display device is longer than a predetermined time set by the user in advance, as recited in Claim 1.

Further, by virtue of the features of Claim 1, when the concentration of one user is continuously toward the display device for a period longer than the predetermined time, the displayed content on the relevant display device is changed to the common virtual space for rest by informally communicating with other users, so that the relevant user can

relax. Applicants have found nothing in *Seligmann*, *Tatsuki*, or *Hardy*, whether considered either separately or in any permissible combination (if any) that would teach or suggest the recited virtual space of Claim 1.

Accordingly, Claim 1 is believed to be clearly allowable over *Seligmann*, *Tatsuki*, or *Hardy*, either separately or in any permissible combination (if any).

Independent Claims 3 and 5 are computer-readable storage medium and control apparatus claims, respectively, corresponding to method Claim 1, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 1.

The other claims in this application are each dependent from independent Claim 5 discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

A review of the other art of record has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Leonard P. Diana", is written over a horizontal line.

Leonard P. Diana  
Attorney for Applicants  
Registration No. 29,296

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
Facsimile: (212) 218-2200

NY\_MAIN 556734v1

(Partial Translation of Tatsuki)

- (11) Publication No. 11-289524
- (43) Date of Publication of Application: October 19, 1999
- (21) Application No. 10-088384
- (22) Date of Filing: April 1, 1998
- (71) Applicant: NTT
- (72) Inventors: MATSUDA TATSUKI  
YASUNO TAKAYUKI  
WATABE YASUHIKO  
SONEHARA NOBORU
- (54) VIRTUAL SPACE CONFERENCE METHOD AND RECORDING MEDIUM  
OF RECORDING THE METHOD

\* Translation of Pertinent Portion in Specification

[0037] (Fourth Embodiment) Fig. 7 is a drawing for explaining the method used as the fourth embodiment of the present invention, and Fig. 8 is a flow chart showing the process by the relevant method.

[0038] 1) In the first and second embodiments, the photography condition is extracted from the camera image transmitted from the client.

[0039] 2) The participant's CG model is mapped, composited and arranged on the coordinate system in the virtual conference space, based on the extracted photography condition of the camera. Then, if the participant moves, the movement information is extracted from the photography condition, and the arrangement in the virtual space is changed simultaneously.

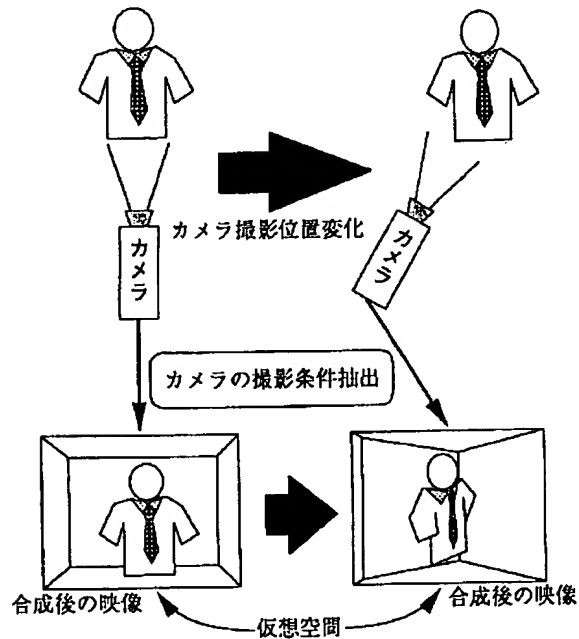
[0040] 3) If the camera moves, the movement information is extracted from the photography condition of the camera. Then, the view point in the virtual conference space is changed together with the movement information.

[0041] According to the present embodiment, it becomes possible to move the CG model virtual conference space in synchronism with the photography condition of the camera

CFO 14963 US

which just takes the participant's image. Thus, the increment in the degree of freedom of the camera in the virtual space is expectable.

\* Translation of Fig. 7



- ・被写体カメラに合わせて同期的に仮想空間の視点も変化。
- ・仮想空間内に参加者がいるような感覚を得られる。

camera	camera shot position changes	camera
	extraction of photography of camera	condition

image after compositing	virtual space	image after compositing
----------------------------	---------------	----------------------------

- ・ view point in virtual space changes in synchronism with object camera
- ・ it is possible to obtain feeling as if participant exists in virtual space